Novel Coronavirus

Clinical Care Guidelines for SEHA Health Care Facilities

Prepared and Approved by

SEHA Infection prevention and Control Committee

Emergency Management Committee

SEHA – Updated April 15, 2013

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Purpose of this document

This document provides interim guidance on a clinical management of the Novel Coronavirus and to help prevent the transmission of acute infectious respiratory diseases during health care, with emphasis on acute respiratory diseases that may constitute a public health emergency of international concern. The guidance is for all SEHA health care facilities in Abu Dhabi. This advice will be updated as more information becomes available

These Guidelines are not intended to override the clinical decisions that will be made by clinicians providing individualized patient care.

Audience

These Guidelines are intended as guidance for:

- Clinicians and health care professionals
- Health professionals who are not normally involved in the care of people with acute infectious respiratory diseases
- Non-health-care professionals who might take care of patients with acute infectious respiratory diseases

Team Members

The development of these guidelines was a result of team effort with the members contributing their expertise. Feel free to contact anyone below if you require further clarification in a specific area.

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1. Introduction

1.1 Coronaviruses

Coronaviruses are a large family of viruses that includes viruses that may cause a range of illnesses in humans, from the common cold to SARS. Viruses of this family also cause a number of animal diseases.

In 2002 the SARS Coronavirus emerged in China and spread globally, infecting over 8000 individuals and killing more than 900. The SARS Coronavirus is believed to have originated in bats and spread to humans either directly or through animals in meat markets. Because the Novel Coronavirus isolated from two patients is related to bat Coronaviruses, there is concern that a scenario similar to the SARS outbreak is in the making. So far there is no evidence of human to human transmission.

2. Epidemiology

2.1 Epidemiology of a Novel Coronavirus

The Novel Coronavirus was first reported by Ali Mohamed Zaki on ProMED-mail on 15 September 2012, from a 60 year old male patient in Saudi Arabia with pneumonia and acute renal failure who died in July. Dr. Zaki sent the virus to Ron Fouchier in the Netherlands who sequenced its genome and confirmed that it is a beta-Coronavirus closely related to bat Coronaviruses.

At the beginning of September 2012 a 49 year old male Qatari national who had previously traveled to Saudi Arabia was admitted to an intensive care unit in Doha with severe respiratory illness. He was moved to the United Kingdom where laboratory tests confirmed the presence of the Novel Coronavirus. A comparison of a 200 nucleotide genome sequence with the one of the virus of the Saudi national revealed 99.5% identity. Alignment of this sequence with that of other Coronaviruses shows that the new virus is related to bat Coronaviruses.

This new virus is not the SARS Coronavirus, but because it is related to bat Coronaviruses there is concern that it could spread rapidly among humans and cause serious respiratory disease.

This is why WHO has placed health officials in its six regions on alert and has issued a case definition so that the disease may be readily detected

26 March 2013 - The Robert Koch Institute informed WHO of a new confirmed case of infection with the Novel Coronavirus (nCoV)

The patient was a 73-year-old male from United Arab Emirates, who was transferred from a hospital in Abu Dhabi to Munich by air ambulance on 19 March 2013. He died on 26 March 2013.

In the United Kingdom, the index patient in the family cluster reported on 11 February 2013 with travel history to Pakistan and Saudi Arabia prior to his illness, has died.

To date, WHO has been informed of a global total of 17 confirmed cases of human infection with nCoV, including 11 deaths. *(Updates are available at: http://www.who.int/csr/don/archive/disease/coronavirus_infections/en/)*

Based on the current situation and available information, WHO encourages all Member States (MS) to continue their surveillance for severe acute respiratory infections (SARI) and to carefully review any unusual patterns. WHO is currently working with international experts and countries where cases have been reported to assess the situation and review recommendations for surveillance and monitoring

2.2 Case Definitions

Case definitions for reporting

This is the current WHO case definition for novel coronavirus as of 19 February 2013.

A) Confirmed Case:

- A person with laboratory confirmation of infection with the Novel Coronavirus.

B) Probable Case:

- A person with an acute respiratory infection* with clinical, radiological, or histopathological evidence of pulmonary parenchymal disease (e.g. pneumonia or Acute Respiratory Distress Syndrome, (ARDS)); AND
- no possibility of laboratory confirmation for novel coronavirus either because the patient or samples are not available for testing; AND
- close contact** with a laboratory-confirmed case.

* This may include but is not limited to cases with a history of fever or measured fever.

** Close contact includes:

- anyone who provided care for the patient, including a health care worker or family member, or who had other similarly close physical contact;
- anyone who stayed at the same place (e.g. lived with, visited) as a probable or confirmed case while the case was symptomatic.

Reporting:

HAAD, Communicable diseases department (CDD) Abu Dhabi requests that probable and confirmed cases be reported within 24 hours of being classified as such.

All the cases should be reported to the CDD Abu Dhabi, through electronic system of notification in the following link: https://bpmweb.haad.ae/UserManagement/login.aspx

2.3 Transmission

Coronaviruses are thought to spread from person to person primarily through large-particle respiratory droplet transmission (e.g., when an infected person coughs or sneezes near a susceptible person). Transmission via large-particle droplets requires close contact between source and recipient persons because droplets do not remain suspended in the air and generally travel only a short distance (<6 feet).

Contact with contaminated surfaces is another source of transmission and transmission via droplet nuclei (also called “airborne” transmission) is possible.

Procedures that have been reported to be aerosol-generating and associated with a documented increased risk of pathogen transmission: these include intubation and related procedures, cardiopulmonary resuscitation, bronchoscopy, autopsy and surgery where high-speed devices are used.

All respiratory secretions and bodily fluids (e.g., diarrheal stool) of Novel Coronavirus cases should be considered potentially infectious.

2.4 Incubation Period

The estimated incubation period is unknown and currently is considered to be up to 10 days.

3. Clinical Findings and Complications

3.1 Symptoms

Pneumonia has been the most common clinical presentation; several patients developed Acute Respiratory Distress Syndrome (ARDS). Renal failure, pericarditis and disseminated intravascular coagulation (DIC) have also occurred.

Patients with respiratory disease due to Novel Coronavirus infection might experience the following symptoms:

- fever >= 38^0C
- cough
- shortness of breath
- breathing difficulties
- fatigue

3.2 Complications

- Lower respiratory tract disease (pneumonia, bronchiolitis, status asthmaticus),
- Acute Respiratory Distress Syndrome (ARDS)
- Renal failure
- Pericarditis
- Disseminated intravascular coagulation (DIC)

3.4 Medical Care for Patients with Novel Coronavirus

Patients with severe illness or acute respiratory distress syndrome should be evaluated and managed in the hospital.

3.4.1 Indication for admission of patients with a respiratory illness suspected to have Coronavirus

a) Evidence or suspicion of Lower Respiratory Tract Infection/Pneumonia.(e.g. dyspnea and pain or pressure in the chest)

b) Hypoxia

c) Moderate to severe gastrointestinal involvement

d) Dehydration not corrected with initial resuscitation at ER

e) Hemodynamically unstable

f) CNS involvement like confusion, seizures or features of encephalopathy

g) Worsening of chronic medical conditions

h) Patient look septic / toxic

In case of children, indications for hospitalization include:

a) Hypoxemia (oxygen saturation consistently less than 92 percent in room air)

b) Respiratory exhaustion or apneic episode. Apnea defined as a ≥20 second pause in breathing

c) Altered level of consciousness. Patient is agitated or irritable, seizures, or floppy infant

d) Dehydration, or inability to maintain hydration orally; inability to feed in an infant

e) Moderate to severe respiratory distress: ≥50 breaths per minute if under 1 year, or ≥40 breaths per minute if ≥1 year, difficulty breathing, apnea, grunting

f) Toxic appearance, which is more common in children with bacterial pneumonia, may suggest a more severe course of pneumonia (e.g., cardiopulmonary compromise)

g) Underlying conditions that may predispose to a more serious course of pneumonia (e.g., cardiopulmonary disease), might be worsened by pneumonia (e.g., metabolic disorder), or might adversely affect response to treatment (e.g., immunocompromised host)

h) Presence of pneumonia or complications (e.g., effusion/empyema)

i) Failure of outpatient therapy (worsening or no response in 24 to 72 hours)

See Appendix 5: Initial management of suspected cases of Novel Coronavirus.

3.4.2 Investigation for Severe Pneumonia

Chemistry and hematology**:**

- Serum Electrolytes
- Serum Glucose
- Urea and Creatinine
- Liver Function test including Liver Enzymes
- Serum creatine kinase

- Serum lactate dehydrogenase
- Complete blood count and differential

Microbiology**:**

- Nasopharyngeal Aspirate for Respiratory Viral Panel
- Novel Coronavirus PCR
- Sputum culture if possible
- Blood culture
- For intubated patients, obtain Deep tracheal aspirate or BAL for:
    a. quantitative culture
    b. Novel Coronavirus PCR
    c. Atypical PCR panel (Mycoplasma, chlamydia, legionella.)
    d. Respiratory viral panel

Other investigations to consider if the etiology of the severe pneumonia is not identified:

- Legionella urinary antigen
- Mycoplasma titers
- Tuberculosis culture and PCR
- Bronchoscopy and biopsy
- Opportunistic pathogens in immuno-compromised patients
- Open lung biopsy

3.4.3 Outpatient management

- Individuals with respiratory illness, who are stable, with mild disease do not require investigations or treatment.
    - If the suspected Novel Coronavirus patient is discharged please be sure to complete electronic notification through HAAD, Communicable diseases department (CDD) website (https://bpmweb.haad.ae).
- Give clear instructions when to seek medical advice.
- Educate the patient and the family about Respiratory viruses and how its spread.
- Patient should stay at home for 7- 10 days after onset of symptoms.
- Issue a sick leave if needed.

7. Testing for Novel Coronavirus (nCoV)

Specimen collection, storage and transportation

Specimens should reach the laboratory as soon as possible after collection. The importance of proper handling during transportation cannot be overemphasized. When there is likely to be a delay in the laboratory receiving respiratory tract specimens , it is strongly advised to freeze them on dry ice

Specimen type	Transport medium	Transport to laboratory	Comment
Naturally produced sputum*	no	refrigerated Ship within 24 hrs.	Need to ensure the material is from the lower respiratory tract
Bronchoalveolar lavage	no	Refrigerated Ship within 24 hrs.	There may be some dilution of virus but still a worthwhile specimen
Tracheal aspirate	no	Refrigerated Ship within 24 hrs.	
Nasopharyngeal aspirate	no	Refrigerated Ship within 24 hrs.	
Combined nose/throat swab	Virus transport medium	Refrigerated Ship within 24 hrs.	Virus has been detected in this type of specimen
Nasopharyngeal swab	Virus transport medium	Refrigerated Ship within 24 hrs.	

It is important to remember that a series of negative results should not rule out the possibility of infection in a patient with clinical symptoms. A number of factors could result in false-negative results, including:

- poor quality of specimen, such as a respiratory tract specimen containing primarily oropharyngeal material
- the specimen was collected late or very early in the illness
- the specimen was not handled and shipped appropriately
- technical reasons inherent in the test, e.g., virus mutation or PCR inhibition

Interpretation of Laboratory results

To consider a case as laboratory-confirmed, one of the following conditions must be met:

- positive PCR assays for at least two different specific targets on the novel coronavirus genome OR
- one positive PCR assay for a specific target on the novel coronavirus genome and an additional different PCR product sequenced, confirming identity to known sequences of the new virus

7.1 Which patients should be tested for Coronavirus?

Priority for testing includes persons who require hospitalization.

7.2 Preferred respiratory specimens:

- Nasopharyngeal aspirate, nasopharyngeal swab, or dual collected throat swabs / nasopharyngeal swabs.
- Intubated patient: endotracheal aspirate.
- Swabs should be placed into sterile universal transport media (UTM) and immediately placed on ice or cold packs or at 4-6°C (refrigerator) for transport to the laboratory. Nasopharyngeal aspirate and endotracheal aspirate does not need to be placed in the UTM.

See appendix 1: Technique for Nasopharyngeal Aspirate and Swab

7.2.1 Swabs

- Swab specimens should be collected using swabs with a synthetic tip (e.g. UTM swab) and an aluminum or plastic shaft. Swabs with cotton tips and wooden shafts are not recommended.
- The swab specimen collection vials should contain 1-3 ml of viral transport medium.

See appendix 2: Viral media and Dacron swab

7.3 Shipping Clinical Specimens:

- Store the specimen refrigerated at 4-6 ^{o}C, however, specimen should not be stored longer than 24 hrs.
- Fill the laboratory request form (No special form yet).
- Clinicians should write on the form if the patient is admitted or not and where (e.g. ICU).
- Clinical specimens should be shipped on ice or cold packs (avoid dry ice) in appropriate packaging (triple bag).
- All specimens should be labeled clearly.
- Send the laboratory request form with the specimen to the reference lab (SKMC Hospital Laboratory).

- Working hours of the Molecular Lab are 8:00 to 17:00 hr on weekdays, but specimen will be accepted 24/7.
- Please inform the laboratory when you have sent a specimen:
    - Hala Imambaccus, Senior Supervisor (himambaccus@skmc.ae)
      Mobile: 050-327-8662
    - Dr.Jurgen Sasse, Head, Molecular Diagnostics (jsasse@skmc.ae)
      Mobile: 050-901-5121
    - Dr.Stefan Weber, Head Serology and Immunology (sweber@skmc.ae)
      Mobile: 056-122-6299

7.4 Recommended Tests and Average Time for Lab Tests

- Immunofluorescence (DFA or IFA) OR Rapid influenza antigen test. The average time for the test results is 24 hours.
- If specimen is negative for influenza A and other viruses -- Real-time RT-PCR shall be performed for Novel Coronavirus.
- The average time is 48 hours, seven days if the sample has to be sent out.

7.5 Reporting confirmed case of Novel Coronavirus.

- Microbiologist or Pathologist on call should inform the attending doctor immediately
- It's the lab's personal responsibility to do the following:

a. Complete the investigation

b. Notify the regional HAAD CDC on the following fax numbers:

Abu Dhabi:	**02-4496966**
Western:	**02-8847835**
Eastern:	**03-7679556**

7.6 Media handling

There should be no release of information to, or discussions with, the media.

8. Infection Control Guidelines for Patients with Confirmed or Suspected Novel Coronavirus in a Healthcare Setting

8.1 Implementation of Respiratory Hygiene/Cough Etiquette

To prevent the transmission of **all** respiratory infections in healthcare settings, including Novel Coronavirus, respiratory hygiene/cough etiquette should be implemented at the first

point of contact (e.g., ER or ambulatory health services) with a potentially infected person and wear a surgical mask.

8.2 Screening Patients

Healthcare facilities should establish mechanisms to screen patients for signs and symptoms of febrile respiratory illness at any point of entry to the facility.

There are 2 types of screening:

1. *Passive surveillance* (signage asking patients to self report symptoms)
2. *Active surveillance* (using the screening tool for influenza like illness in the emergency department). (See attached for an example of the screening tool *Appendix 4*: *Screening Tool for Influenza-like Illness (ILI) in Health care facilities).*

Health care facilities can use both types.

8.3 Infection Prevention and Control Recommendations

8.3.1 Patient placement

Any patients who have a confirmed, probable, or suspected case of Novel Coronavirus and present for care at healthcare facilities should be placed directly in a single room and the door should be kept closed. If the patient is severely sick or will require suctioning or nebulizer, he/she should be admitted directly into a negative pressure single room, with ≥ 12 air changes per hour (ACH) without controlled direction of air flow if available.

For procedures that are likely to generate aerosols (e.g., bronchoscopy, elective intubation, suctioning, administering nebulized medications), an airborne infection isolation room (AIIR) with negative pressure air handling with 6 to 12 air changes per hour can be used if its available.

The **ill person should wear a surgical mask to contain secretions when outside of the patient room** and should be encouraged to perform hand hygiene frequently and follow respiratory hygiene/cough etiquette practice.

8.3.2 Patient Transport

a) Within the healthcare facility

- Limit transportation of patient to essential procedures that cannot be performed in the patient's room.
- If possible, schedule the procedure at the end of the day.
- The patient's unit shall always notify the receiving department of the need for droplet precautions.
- Put a surgical mask on the patient prior to transport if possible.
- Maintain the precautions during transport. Personnel transporting or accompanying the patient do not require a masks if the patient is wearing a mask.

- PPE must be removed and disposed of in appropriate receptacles, and hands must be disinfected, after patient transport is complete.
- Stretchers, wheelchairs, or strollers used for transport must be disinfected after use.
- Parents or guardians accompanying patient off the unit are not to wear PPE unless carrying the child to the procedure.

b) To another healthcare facility

For the transportation to another health care facilities; the infection prevention and control guidelines apply and each organization should follow the transportation policy.

8.4 Limitation of Healthcare Personnel Entering the Isolation Room

Healthcare personnel entering the room of a patient in isolation should be limited to those performing direct patient care.

8.5 Isolation Precautions

All healthcare personnel who enter the patient's room should:

1) Maintain adherence to **hand hygiene by washing with soap and water or using alcohol-based hand rub.**
2) **Wear gowns, mask (N95 if available or Hood), eye protections and non-sterile gloves.**
3) Follow the recommended sequences of wearing and removing PPE.

8.6 Management of Visitors

- Limit visitors for patients in isolation for Novel Coronavirus to persons who are important for the patient's emotional well-being and care.
- Visitors may be offered personal protective equipment and should be instructed by healthcare personnel on the use before entering the patient's room.
- Visitors should not be in the room during any procedures that are likely to generate aerosols (e.g. suctioning).

8.7 Toys

- Patients should use their own toys, and should not share toys with other patients.
- Leave toys in the patient's room (or bed/crib).
- If toys are be provided by the hospital, they must be non-porous and must be properly disinfected before subsequent use.

8.8 Duration of Precautions

Isolation precautions should be continued for 10 days from symptom onset or until the resolution of symptoms, whichever is longer.

8.9 Surveillance of Healthcare Personnel

Healthcare personnel working in areas of a facility where there are patients being assessed or isolated for Novel Coronavirus should self-monitor daily for signs and symptoms of febrile respiratory infection. Healthcare personnel who develop these symptoms should be instructed not to report to work, or if at work, should cease patient care activities and notify their supervisor and infection control personnel. Report to Occupational Health, or whoever deals with work related illness in your facility for determination of need for management.

8.10 Management of Ill Healthcare Personnel

Healthcare personnel, who develop febrile respiratory illness and have been working in areas of the hospital where Novel Coronavirus patients are present, Should be assessed by the Infectious diseases consultant or occupational health.

8.11 Environmental Infection Control

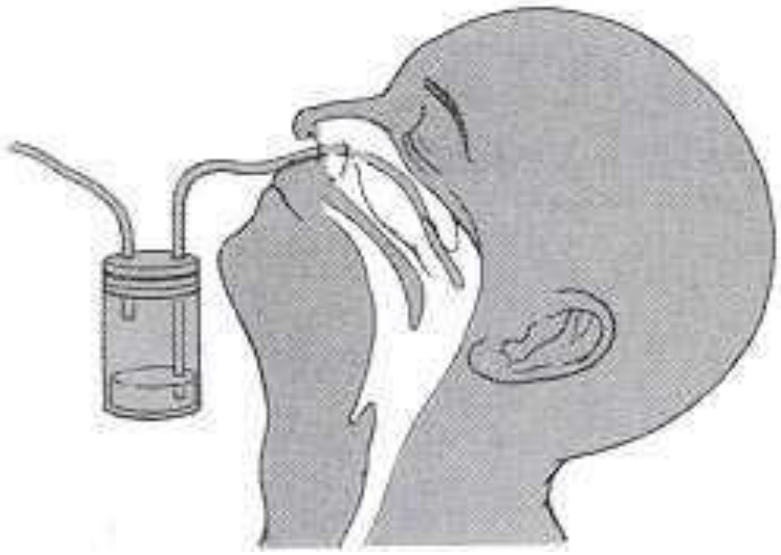
Routine cleaning and disinfection strategies used during influenza seasons can be applied to the environmental management of Novel Coronavirus. Management of laundry, utensils and medical waste should also be performed in accordance with procedures followed for seasonal influenza.

References:

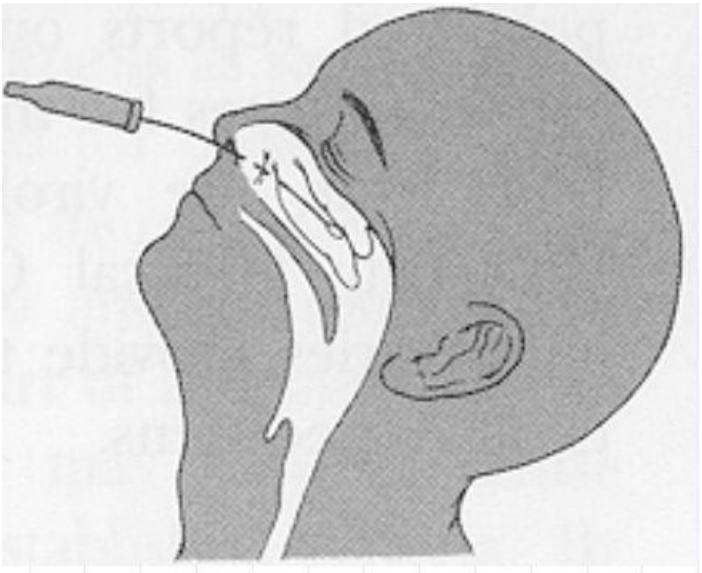
1. http://www.who.int/csr/disease/Coronavirus_infections/case_definition/en/index.html
2. http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1317136300809
3. http://www.cdc.gov/Coronavirus/ncv/
4. http://www.who.int/csr/disease/coronavirus_infections/InterimGuidance_ClinicalManagement_NovelCoronavirus_11Feb13u.pdf

***Appendix 1*: Technique for Nasopharyngeal Aspirate and Swab**

A) Nasopharyngeal aspirate:



B) Nasopharyngeal swabs:



***Appendix 2*: UTM (Universal Transport Medium) and flocked nylon swabs**

Appendix 3: Disease Notification Forms

Health Authority – Abu Dhabi

Center of Diseases Control

هيئة الصحة – أبوظبي Appendix3

مركز مراقبة الأمراض

Infectious Diseases Notification Form

Case information	**Clinical Information**
Medical Record #	**Diagnosis** :_____
Name First _____Middle_____Family_____	☐ Suspected ☐ Confirmed Date of Onset ___/___/ _____
Date of birth ___/___/ _____ **Gender**: ☐ Male ☐ Female	☐ In-patient ☐ Out-Patient Date of admission ___/___/ _____
Nationality :	
Passport #:	
Emirates ID# :	
Emirates of residence: ☐AD ☐ DXB ☐SHJ ☐AJ ☐UAQ ☐RAK ☐FUJ	**Action taken: (tick All that apply)** ☐ Investigation done ☐ Sent home ☐Admitted ☐Referred Details (specify. e.g. type of investigation, medication prescribed, or referral hospital name) _____ _____
Address : City _____ Area _____ Street: _____ House/flat No._____	
Mobile Number:	
Home Number :	
Employment information	**Registration Information:**
Occupation:	**Clinician's Name** First _____Family_____
Place of work/school:	
Telephone # of work/school:	ID / License # - Stamp & Signature : I certify that I have completed this form to the best of my knowledge
Residency status: ☐ UAE citizen ☐Resident Expatriates ☐ Visitor	
Sponsor's Name : First _____Middle_____Family_____	ID# _____ Date___/___/ _____ Stamp& signature : _____
Sponsor's mobile:	Clinician's Contact Number :
Please Select the Diagnosis from the list below	Health Care Facility Name:

- ☐ AFP/ Poliomyelitis 🖷 ✆ 🖃 **1**
- ☐ Amebiasis 🖷 ✆ 🖃 **7**
- ☐ Anthrax ☎
- ☐ Avian Influenza (human) ☎
- ☐ Botulism ☎
- ☐ Brucellosis 🖷 ✆ 🖃 **1**
- ☐ Chickenpox 🖷 ✆ 🖃 **7**
- ☐ Chickenpox (hospitalizations and deaths) 🖷 ✆ 🖃 **1**
- ☐ Cholera ☎
- ☐ Creutzfeldt-Jakob Disease (CJD) 🖷 ✆ 🖃 **7**
- ☐ Dengue Fever ☎
- ☐ Diphtheria ☎
- ☐ Encephalitis, Specify Etiology: 🖷 ✆ 🖃 **1**
  - ☐ Viral
  - ☐ Bacterial
  - ☐ Fungal
  - ☐ Parasitic
- ☐ Escherichia coli: 🖷 ✆ 🖃 **1**
- ☐ Food borne Illness☎Specify: …….
- ☐ Giardiasis 🖷 ✆ 🖃 **7**
- ☐ Haemophilus influenzae invasive disease 🖷 ✆ 🖃 **1**
- ☐ Hemolytic Uremic Syndrome ☎
- ☐ Hepatitis A 🖷 ✆ 🖃 **1**
- ☐ Hepatitis B (specify acute case or chronic) 🖷 ✆ 🖃 **7**
- ☐ Hepatitis C (specify acute case or chronic)🖷 ✆ 🖃 **7**
- ☐ Hepatitis D (Delta)🖷 ✆ 🖃 **7**
- ☐ Hepatitis, other acute🖷 ✆ 🖃 **1** Specify……
- ☐ Human Immunodeficiency Virus (HIV)/AIDS☎
- ☐ Influenza 🖷 ✆ 🖃 **7**
- ☐ **Invasive Pneumococcal Disease (IPD)**🖷 ✆ 🖃 **7**
- ☐ Hydatid Disease🖷 ✆ 🖃 **7**
- ☐ Legionellosis🖷 ✆ 🖃 **1**
- ☐ Leprosy (Hansen Disease) 🖷 ✆ 🖃 **1**
- ☐ Listeriosis🖷 ✆ 🖃 **7**
- ☐ Malaria 🖷 ✆ 🖃 **1**
- ☐ Measles (Rubeola)🖷 ✆ 🖃 **1**
- ☐ Meningitis Specify Etiology:🖷 ✆ 🖃 **1**
  - ☐ Viral
  - ☐ Bacterial
  - ☐ Fungal
  - ☐ Parasitic
- ☐ Meningococcal Infections ☎specify…. ….
- ☐ Mumps 🖷 ✆ 🖃 **7**
- ☐ Pertussis (Whooping Cough) 🖷 ✆ 🖃 **1**
- ☐ Plague ☎
- ☐ Rabies ☎
- ☐ Relapsing Fever 🖷 ✆ 🖃 **1**
- ☐ Rubella (German Measles) 🖷 ✆ 🖃 **1**
- ☐ Rubella Syndrome, Congenital🖷 ✆ 🖃 **1**
- ☐ Scabies🖷 ✆ 🖃 **7**
- ☐ Severe Acute Respiratory Syndrome (SARS) ☎
- ☐ Shigellosis 🖷 ✆ 🖃 **1**
- ☐ Smallpox (Variola) ☎
- ☐ Sexually Transmitted Infection (STIs) e.g. Chlamydia, Gonorrhea, Syphilis, other,🖷 ✆ 🖃 **7**
  specify……..
- ☐ Tetanus 🖷 ✆ 🖃 **7**
- ☐ Tuberculosis (Pulmonary) ☎
- ☐ Tuberculosis (Extra-Pulmonary) 🖷 ✆ 🖃 **7**
- ☐ Typhoid /Paratyphoid Fever 🖷 ✆ 🖃 **1**
- ☐ Typhus Fever 🖷 ✆ 🖃 **1**
- ☐ Viral Hemorrhagic Fevers (e.g., Crimean-Congo, Ebola, Lassa, and Marburg viruses) ☎
- ☐ Yellow Fever ☎
- ☐ Occurrence of any unusual diseases☎ specify
  ……

☎ = Report immediately by telephone.

🖷 ✆ 🖃 **1** = Report by fax, phone or mail within one calendar day of identification,

🖷 ✆ 🖃 **7** = Report by fax, phone or mail within seven calendar days of identification

To be completed by the Center of Disease Control (CDC)

Received by (name):_____ Date:___/___/_____

Signature: _____ Time:_____

Investigator (name): _____ Date:___/___/_____

Signature: _____ Time:_____

CUID# : _____

CIF # : _____

Instructions: ----------

Outcome: ☐Cure ☐Follow-up ☐Lost to follow up ☐Traveled ☐Died ☐Other (specify):----------

Action taken: ----------

District	Phone		Fax
	Disease Control	Director	
Abu Dhabi	(02) 419 3275	(02) 419 3602	(02) 449 6966
Western Region	(02) 884 6223	(02) 419 3602	(02) 884 7835
Eastern Region	(03) 767 8883	(02) 419 3602	(03) 767 9556
Dubai	(04) 273 1161	(04) 273 1467	(04) 272 6520
Sharjah	(06) 566 2111	(06) 567 0908	(06) 567 0911
Ajman	(06) 744 8585	(06) 701 0220	(06) 744 3873
Um Al Quwain	(06) 765 6941	(06) 765 6941	(06) 765 4441
Ras Al Khaimah	(07) 222 3111	(07) 222 3111	(07) 222 2114
Fujairah	(09) 222 7114	(09) 222 2230	(09) 222 4626

***Appendix 4*: Screening Tool for Influenza-like Illness (ILI) in Health care facilities**

1. **Do you sneeze or cough or have shortness of breath?**

   - If the answer is 'no', no further action is required
   - If the answer is 'yes',

   Patient should perform hand hygiene using alcohol-based hand sanitizer and put on a mask

2. **Do you have a fever or have you feel feverish in the last 24 hours?**

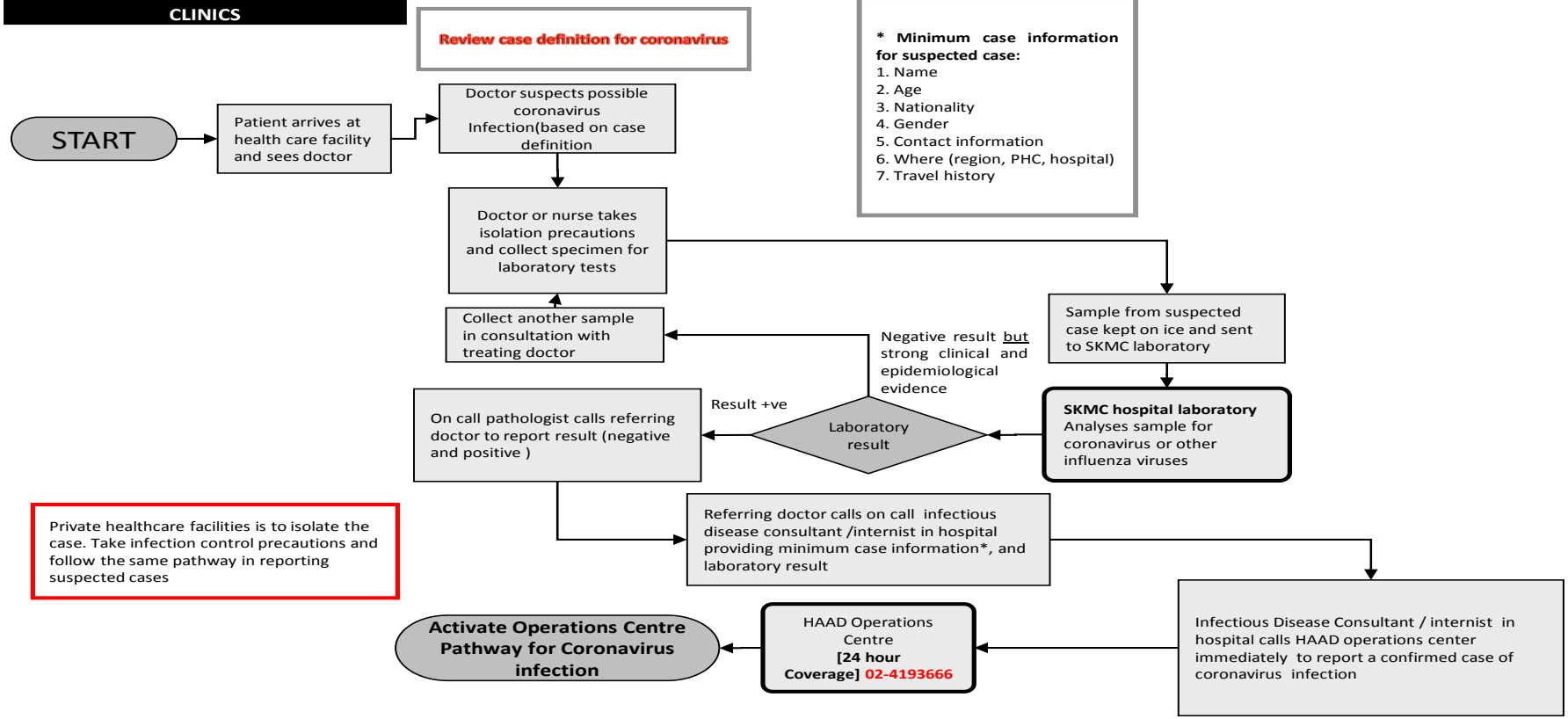
   - If the answer is 'no', take the patient's temperature;
     - ✓ If the temperature is = >38 C, Manage the patient as ILI
     - ✓ If the temperature is < 38 C, no further action
   - If 'yes', take the patient's temperature, and manage the patient as ILI regardless of temperature measurement and inquire about other symptoms of ILI

***Appendix 5*: Initial Management of the Suspected Cases of Novel Coronavirus in the Emergency Room**

Process for suspected case and initial management of possible Coronavirus Infection

CAUTION: coronavirus infection may be life-threatening; appropriate care should be taken with human cases and samples

FOR OPEN CIRCULATION TO ALL PHYSICIANS AND NURSING STAFF AT PUBLIC AND PRIVATE HOSPITALS AND CLINICS



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NOTES

- This pathway is to be used only for suspected or confirmed coronavirus infection

- On call infectious disease consultant/internist must make a clinical decision if this is a highly suspicious case for coronavirus based on:
  - ✓ Clinical history
  - ✓ Case definition
  - ✓ Epidemiology
  - ✓ Laboratory result

- In case of high suspicion for coronavirus infection infectious diseases consultant/internist take infection control precautions, and notify the HAAD Operations Centre.

- HAAD Operations Centre will then call the key contacts for coronavirus infection.

For further information check the WHO website
http://www.who.int/csr/disease/coronavirus_infections/en/index.html